

**MTU Mini-grant Application:
Water Measurement on Mill Creek**

Project Location

Mill Creek, a 22-mile tributary to the upper Yellowstone River, is located in Park County about 20 miles south of Livingston, Montana, and 30 miles north of the Yellowstone National Park. It flows from the Absaroka Mountain Range, and then flows through a steep canyon and broad high bench along the east side of Paradise Valley before discharging into the Yellowstone River.

Mill Creek drains an area of about 150 square miles. Lands within the drainage are used for outdoor recreation, lumbering, livestock grazing, and irrigated agriculture. Most of the water diverted from the stream is used to irrigate about 4,300 acres of land used for pasturing livestock and production of alfalfa, grass hay, and some barley.

Purpose and Need

The Yellowstone River, into which Mill Creek flows, is a nationally recognized trout stream, especially famous for Yellowstone cutthroat trout. Mill Creek is one of several small spawning tributaries deemed critical to the maintenance of the cutthroat population in the upper Yellowstone River. In recent years, the drought, combined with irrigation water demand, has reduced surface connectivity between Mill Creek and the mainstem during late summer, when water is needed for both irrigation and fry conveyance.

Recently, Mill Creek residents and water users have begun discussions to address instream flows. The Upper Yellowstone Watershed Group has appointed a subcommittee (Mill Creek Subcommittee) to work with technical specialists and local residents to devise and implement a water measurement program aimed at identifying ways to better manage water and mitigate chronic dewatering. MT DNRC has agreed to provide the planning and technical services necessary to carry out such a program. According to a 1994 Water Measurement Report, most if not all of the diversions off Mill Creek have weirs (measurement devices) that enable quantification of diversion amounts. Aside from the need to devise a water measurement program, an additional focus of the Subcommittee is to negotiate who will do the water level recording and reporting, and who will pay for it. Options include previous water commissioners/ditch riders, Park CD, or another hired contractor. Finally, this project may also identify which of the measuring devices are in disrepair and in need of attention.

The focus of this grant application is to provide communication and coordination services necessary to implement such a program. Local leadership and involvement is critical to finding a solution to the Mill Creek dewatering situation. As a unit of local government statutorily charged with natural resource management, the Park Conservation District is a logical choice to provide communication and coordination services for the project. Park CD has a full time administrator, an existing communications network, a centralized office and meeting room, and an auditable accounting system in place. Park CD has a base funding level from a mill levee. Since the mill levee does not cover the entire cost of operating a Conservation District, they depend on project money to keep an Administrator/Coordinator on staff. They already have some project money to operate the Upper Yellowstone and Shields River watershed groups, but nothing specifically for Mill Creek which will require specific attention in the near future.

Project Goals and Objectives:

Goal: Provide Coordination and Communication Services to the Mill Creek Subcommittee and the Upper Yellowstone Watershed Group

Objective 1: Prepare and Maintain Mailing List (email and postal)

Objective 2: Host and Schedule Meetings at the request of the Mill Creek Subcommittee and Upper Yellowstone Watershed Group

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- Objective 3: Serve as a central point of contact for residents and other interested parties regarding the Mill Creek process.
- Objective 4: Serve as a central repository for work products and other information collected pertaining to Mill Creek
- Objective 5: Perform accounting and other grant administration tasks as necessary
- Objective 6: Attend meetings, prepare meeting minutes, and maintain records pertaining to Mill Creek.

The Joe Brooks Chapter will participate in all meetings of the Mill Creek Subcommittee and will maintain the grant funds; the Park Conservation District will invoice JBTU monthly for reimbursement. Travel and correspondence monies may be used by either entity.

Montana DNRC will offer services totaling \$14,000.00 in matching funds. Those services include:

- o GIS Services - \$1,250
- o Website Development and Maintenance - \$1,250
- o Hydrologist (Water Measurement Program) - \$3,750
- o Planner (Water Management Bureau) - \$3,750
- o Supplies (Aquarods - (4) @ \$1,000 each) - \$4,000

Funds requested: \$ 3,510.00 Time Period (6) months

Personnel Cost	Monthly	Total	Total @ \$20.00/hr
Prep & Maintain Mailing lists	2 (hours)	12	\$240.00
Schedule & Attend Meetings	5	30	\$600.00
Contact for residents	2	12	\$240.00
Collate Mill Creek information	2	12	\$240.00
Grant administration	2	12	\$240.00
Meeting Records	4	24	\$480.00
Total Personnel Costs	19	114	\$2,280.00
Materials			
Advertise Meetings	\$60.00	\$360.00	
Correspondence/Printing	\$100.00	\$600.00	
Total Materials			\$ 960.00
Other			
Mileage @ .45/mile	100	600	\$ 270.00
Total Amount Requested			\$3,510.00

Conclusion

The issue of Mill Creek's dewatering is the most often posed question by both our JBTU members and the public who approach our board. While many ideas may be discussed, the Mill Creek Subcommittee believes the necessary first step to any solutions for Mill Creek flows is to first understand the water use on the creek and identify any repairs needed in the existing irrigation systems. The opportunity to work with all the interested parties is of paramount importance and the Mill Creek Subcommittee offers the best chance for the monitoring, reporting and identifying ways to better manage water and mitigate chronic dewatering of one of the important tributaries for the Upper Yellowstone River.